

**APPARATUS, SYSTEM, AND METHOD OF  
ARCHIVAL AND RETRIEVAL OF SAMPLES**

The present application is related to non-provisional application Serial No. 10/007,355 filed November <sup>7</sup>/<sub>2</sub>, 2001, entitled "SAMPLE CARRIER" and also to  
5 non-provisional application Serial No. 10/005,415 filed November <sup>7</sup>/<sub>2</sub>, 2001, entitled  
"ARCHIVE AND ANALYSIS SYSTEM AND METHOD" the disclosures of which  
are hereby incorporated by reference in their entirety.

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**Field Of The Invention**

Aspects of the present invention relate generally to archival of sample  
10 material, and more particularly to a system and method of archiving and retrieving  
biological or non-biological samples maintained in desiccated form at a plurality of  
sample nodes on a carrier.

**Description Of The Related Art**

In many applications such as pharmaceutical and medical research, law  
15 enforcement, and military identification, for example, it is often desirable to have  
access to numerous biological samples. Conventional biorepositories or other  
sample storage facilities utilize liquid or low temperature cryogenic systems for  
sample storage; these liquid and cryogenic systems are expensive both to create and  
to maintain. Additionally, current technology generally presents system operators  
20 with complicated and labor intensive maintenance and administrative  
responsibilities.

Specifically, the intricacies of cryogenic systems may typically oblige  
technicians, researchers, and system operators to engage in coordinated labor for  
weeks to retrieve and to prepare thousands of deoxyribonucleic acid (DNA) samples  
25 from whole blood. Accordingly, conventional approaches for archiving DNA in  
liquid or cryogenic states are fundamentally inadequate to the extent that they do not  
accommodate high volume processing and sample throughput. Current research  
trends recognize benefits associated with systems and methods of archiving and  
retrieving biological and non-biological samples which may be capable of processing  
30 thousands of samples per day; current technology, however, is inadequate to attain

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